

In the Claims

1-11 (Canceled)

12. (Currently Amended) A method for manufacturing an electrical cable, comprising:

(a) assembling three insulated conductors in contact with each other and extruding an elastomeric jacket of unexpanded elastomeric material over at least one the insulated conductorconductors;

(b) rolling a metal plate around the jacket to form a cylindrical tubing having a seam;
then

(c) welding the seam; then

(d) swaging the tubing to a lesser diameter wherein an inner wall of the tubing frictionally grips the jacket.

13. (Original) The method according to claim 12, wherein step (b) comprises forming the cylindrical tubing with an initial inner diameter a selected amount greater than an outer diameter of the jacket.

14. (Original) The method according to claim 12, wherein step(b) comprises forming the cylindrical tubing with an initial inner diameter at least .030 inch greater than an outer diameter of the jacket.

15. (Previously Presented) The method according to claim 12 wherein step (a) comprises forming the jacket with an ethylenepropylenediene monomer material.

16. (Original) The method according to claim 12, wherein step (b) comprises forming the plate of stainless steel.

17. (Currently Amended) ~~The method according to claim 12-~~ A method for manufacturing an electrical cable, comprising:

(a) extruding an elastomeric jacket over at least one insulated conductor;

(b) rolling a metal plate around the jacket to form a cylindrical tubing having a seam;

then

(c) welding the seam; then

(d) swaging the tubing to a lesser diameter wherein an inner wall of the tubing frictionally grips the jacket; and wherein:

step (a) comprises forming a longitudinal recess in the jacket; and

step (b) comprises aligning the seam with the recess.

18. (Currently Amended) A method for manufacturing a heater cable for a well, comprising:

(a) continuously extruding a jacket of a deformable thermoplastic material over a plurality of insulated conductors, and providing the jacket with a cylindrical exterior having a plurality of longitudinally extending grooves;

(b) continuously rolling a metal plate around the jacket to form a cylindrical tubing having a seam;

(c) welding the seam; then

(d) swaging the tubing to a lesser diameter , wherein an inner wall of the tubing frictionally grips and deforms the jacket, and the grooves deflect to accommodate portions of the deformed material of the jacket.

19. (Original) The method according to claim 18, further comprising cutting the tubing, the jacket and the insulated conductors at a desired length to form a lower end of the cable, then joining the conductors electrically to each other at the lower end.

20. (Previously Presented) The method according to claim 18, wherein step (d) comprises swaging the tubing to an outer diameter that is less than 1.00 inch.

21. (Currently Amended) A method for applying heat to a well, comprising:

(a) forming a heater cable by extruding a jacket over a plurality of insulated conductors, rolling a metal plate around the jacket to form a cylindrical tubing having a seam, welding the seam, then swaging the tubing to a lesser diameter, wherein an inner wall of the tubing frictionally grips the jacket;

(b) electrically joining lower ends of the conductors and deploying the heater cable into the well; and

(c) applying electrical power to the conductors to cause heat to be generated; and

wherein step(a) comprises forming the cylindrical tubing with an initial inner diameter at least .030 inch greater than an outer diameter of the jacket.

22. – 25. (Canceled)

26. (Previously Presented) The method according to claim 18 wherein step (a) comprises forming the jacket with an ethylenepropylenediene monomer material.

27. (Previously Presented) The method according to claim 18, wherein step (b) comprises forming the plate of stainless steel.

28. (Previously Presented) The method according to claim 18 wherein:
step (a) comprises forming a longitudinal recess in the jacket; and
step (b) comprises aligning the seam with the recess.

29. (Previously Presented) The method according to claim 19, further comprising closing the lower end of the tubing after the conductors are electrically joined to seal the interior of the tubing.

30. (Previously Presented) The method according to claim 19, further comprising insulating the lower ends of the conductors from the tubing, and sealing the tubing from entry of fluids from the exterior into the interior of the tubing.

31. (Currently Amended) ~~The method according to claim 21,~~ A method for applying heat to a well, comprising:

(a) forming a heater cable by extruding a jacket over a plurality of insulated conductors, rolling a metal plate around the jacket to form a cylindrical tubing having a seam, welding the seam, then swaging the tubing to a lesser diameter, wherein an inner wall of the tubing frictionally grips the jacket;

(b) electrically joining lower ends of the conductors and deploying the heater cable into the well;

(c) applying electrical power to the conductors to cause heat to be generated; and
wherein step (b) further comprises

closing a lower end of the tubing to prevent entry of well fluids into the interior of the tubing.

32. (Currently Amended) ~~The method according to claim 21,~~ A method for applying heat to a well, comprising:

(a) forming a heater cable by extruding a jacket over a plurality of insulated conductors, rolling a metal plate around the jacket to form a cylindrical tubing having a seam, welding the seam, then swaging the tubing to a lesser diameter, wherein an inner wall of the tubing frictionally grips the jacket;

(b) electrically joining lower ends of the conductors and deploying the heater cable into the well;

(c) applying electrical power to the conductors to cause heat to be generated; and

wherein step (b) further comprises insulating the lower ends of the conductors from the tubing, and sealing the tubing to prevent entry of well fluids into contact with the conductors.

33. (Previously Presented) The method according to claim 21, wherein step (b) comprises forming the cylindrical tubing with an initial inner diameter a selected amount greater than an outer diameter of the jacket.

34. (Previously Presented) The method according to claim 21 wherein:

step (a) comprises forming a longitudinal recess in the jacket; and

step (b) comprises aligning the seam with the recess.